AMENDMENTS TO THE CLAIMS

1. (currently amended) A method for track locking in an optical disc drive, the optical disc drive comprising a pick-up device for reading data from a plurality of tracks of an optical disc, the optical disc comprising a plurality of adjacent track periods, each track period comprising an on-track period and an off-track period, the on-track period comprising only one track, the optical disc drive further comprising a driving device for driving the pick-up device, and a location detecting device for detecting a location of the pick-up device and producing a tracking error signal, the method comprising:

producing a corrected tracking error signal, according to the tracking error signal, when the pick-up device is located at a target track related to the off-track period, the corrected tracking error signal being modified from a reference point onward, to mirror the subsequent half cycle of the tracking error signal; and

controlling the driving device to enable the pick-up device to lock at the target track, according to the corrected tracking error signal[[;]].

2. (original) The track locking method of claim 1, wherein a reference value of the tracking error signal is obtained when the pick-up device is

located at a common border between the on-track period and the off-track period, and the mirror signal is obtained by taking the reference signal as a reference to convert the tracking error signal.

3. (original) The track locking method of claim 1, wherein in the step of producing the corrected tracking error signal, when the pick-up device is located at the off-track period related to the target track, the corrected tracking error signal is approximately proportional to a distance between the pick-up device and the target track.

4. (original) The track locking method of claim 3, wherein the step of producing the corrected tracking error signal further comprises:

when the access device is located at the on-track period of the target track, using the tracking error signal as the corrected tracking error signal.

5. (original) The track locking method of claim 1 further comprising:

differentiating a location of the pick-up device, according to a track cross signal.

6. (original) The track locking method of claim 5, wherein the track cross signal is a Radio Frequency Zero Cross (RFZC) signal.

7. (previously presented) An optical disk drive with

a pick-up device for reading data from a plurality of tracks of a compact disc, the compact disc comprising a plurality of adjacent track periods, each track period comprising an on-track period and an off-track period, the on-track period having only one track, the optical disc drive comprising:

a driving device for driving the pick-up device;

a location detecting device electrically connected to the pick-up device for detecting a location of the pick-up device and producing a tracking error signal, wherein when the pick-up device is located at a common border between the on-track period and the off-track period, the tracking error signal has a reference value;

a signal correcting unit electrically connected to the location detecting device for producing a corrected tracking error signal according to the tracking error signal; and

a control device electrically connected to the signal correcting unit for controlling the driving device according to the corrected tracking error signal;

wherein when the pick-up device is located within the off-track period related to a target track, the corrected tracking error signal is modified from a reference point onward to mirror the subsequent half cycle of the tracking error signal.

8. (original) The optical disc drive of claim 7, wherein when the pick-up device is located within the off-track period related to the target track,

the corrected tracking error signal is approximately proportional to a distance between the pick-up device and the target track.

9. (original) The optical disc drive of claim 7, wherein when the pick-up device is located at the on-track period related to the target track, the corrected tracking error signal is the same as the tracking error signal.

10. (original) The optical disc drive of claim 7, wherein the signal correcting unit differentiates the location of the pick-up device according to a track cross signal.

11. (original) The optical disc drive of claim 10, wherein the track cross signal is a Radio Frequency Zero Cross (RFZC) signal.

12. (new) A method for track locking on an optical disc comprising a plurality of adjacent track periods, each track period comprising an on-track period and an off-track period, the on-track period comprising only one track, the method comprising:

driving a pick-up device;

detecting a location of the pick-up device and producing a tracking error signal;

producing a corrected tracking error signal when the pick-up device is located at a target track related to the off-track period, the corrected tracking error signal comprising a first half cycle that is substantially the same as a first half cycle the

tracking error signal and a subsequent second half cycle that is substantially a mirrored image of a second half cycle of the tracking error signal; and

controlling the driving device to enable the pick-up device to lock at the target track, according to the corrected tracking error signal.